

Amendment to the Claims

1. - 14. (Cancelled)

15. (Currently Amended) A transgenic plant comprising a recombinant nucleic acid molecule, wherein the nucleic acid molecule encodes a temporin A, B, F, G, or L peptide having temporin biological activity.

16. (previously presented) The transgenic plant of claim 15, wherein the nucleic acid molecule comprises SEQ ID NO: 15.

17. (Currently Amended) The transgenic plant of claim 15, wherein the temporin peptide comprises an amino acid sequence selected from the group consisting of SEQ ID NOS: 17[[-26]], 18, 19, 23 and 26.

18. (previously presented) The transgenic plant of claim 17, wherein the temporin peptide further comprises an N terminal peptide extension of between 2 and 25 amino acids in length.

19. (previously presented) The transgenic plant of claim 18, wherein the N-terminal peptide extension is AMWK (SEQ ID NO: 39), ASRH (SEQ ID NO: 40), or ALWK (SEQ ID NO: 41).

20. (Currently Amended) A transgenic plant comprising a recombinant nucleic acid molecule, wherein the nucleic acid molecule encodes a fusion peptide having a formula P-T, wherein T is a temporin A, B, F, G, or L peptide and P is an anionic pro-region peptide.

21. (Currently Amended) A transgenic plant comprising a recombinant nucleic acid molecule, wherein the nucleic acid molecule encodes a fusion peptide having a formula P-S-T, wherein T is a temporin A, B, F, G, or L peptide, P is an anionic pro-region peptide and S is a spacer peptide.

22. (Currently Amended) A transgenic plant comprising a nucleic acid molecule encoding a peptide comprising an amino acid sequence selected from the group consisting of:

- (a) SEQ IDs: 17[[-26]], 18, 19, 23 and 26 and fragments thereof;
 - (b) amino acid sequences that differ from an amino acid sequence specified in (a) by one or more conservative amino acid substitutions; and
 - (c) amino acid sequences that share at least ~~90%~~ 70% sequence identity with an amino acid sequence specified in (a),
- wherein the peptide has temporin biological activity.

23. (previously presented) The transgenic plant of claim 22, wherein the peptide further comprises an anionic pro-region peptide operably linked to the N-terminus of the peptide.

24. (previously presented) A transgenic plant comprising a recombinant nucleic acid molecule encoding a peptide comprising SEQ ID NO: 34.

25. (currently amended) The transgenic plant of claim 22, wherein the amino acid sequence shares at least 95% sequence identity to SEQ ID NO: 17, 18, 19, 23 or 26.

26. (Currently Amended) ~~The~~ A transgenic plant comprising a recombinant nucleic acid molecule of claim 18, wherein the recombinant nucleic acid molecule comprises SEQ ID NO: 33.

27. (Currently Amended) ~~The~~ A transgenic plant expressing a temporin peptide of claim 21, wherein the temporin peptide comprises SEQ ID NO: 18.

28. (previously presented) The transgenic plant of claim 18, wherein the N terminal peptide extension comprises MAMWK (amino acids 1-5 of SEQ ID NO: 28) or MASRH (amino acids 1-5 of SEQ ID NO: 33).

29. (previously presented) The transgenic plant of claim 17, wherein the peptide comprises the amino acid sequence shown in SEQ ID NO: 17.

30. (Canceled)

31. (previously presented) The transgenic plant of claim 17, wherein the peptide comprises the amino acid sequence shown in SEQ ID NO: 19.

32. – 34. (Canceled)

35. (previously presented) The transgenic plant of claim 17, wherein the peptide comprises the amino acid sequence shown in SEQ ID NO: 23.

36. - 37. (Canceled)

38. (previously presented) The transgenic plant of claim 17, wherein the peptide comprises the amino acid sequence shown in SEQ ID NO: 26.

39. (Currently Amended) The transgenic plant of claim ~~[[17]]~~22, wherein the amino acid sequence comprises SEQ ID NO: 17, 18, 19, ~~20, 21, 22~~, 23, ~~24, 25~~, or 26 with one conservative amino acid substitution.

40. (previously presented) The transgenic plant of claim 23, wherein the anionic pro-region peptide comprises SEQ ID NO: 16.

41. (previously presented) The transgenic plant of claim 21, wherein the spacer peptide comprises between 2 and 25 amino acids.

42. (previously presented) The transgenic plant of claim 21, wherein the spacer peptide comprises SEQ ID NO: 41.

43. (Currently Amended) The transgenic plant of claim 20, wherein the temporin peptide comprises SEQ ID NO: 17, 18, 19, ~~20, 21, 22~~, 23, ~~24, 25~~, or 26.

44. (Currently Amended) The transgenic plant of claim 21, wherein the temporin peptide comprises SEQ ID NO: 17, 18, 19, ~~20, 21, 22~~, 23, ~~24, 25~~, or 26.

45. (previously presented) The transgenic plant of claim 15, wherein the plant is a tobacco plant or a potato plant.

46. (previously presented) The transgenic plant of claim 15, wherein the plant is resistant to bacteria or fungi.

47. (previously presented) The transgenic plant of claim 45, wherein the bacteria is *E. carotovora* or *E. coli*.

48. (previously presented) The transgenic plant of claim 45, wherein the fungi is a *Fusarium sp.* or a *Phytophthora sp.*.

49. (New) The transgenic plant of claim 22, wherein the amino acid sequence shares at least 80% sequence identity to SEQ ID NO: 17, 18, 19, 23, or 26.

50. (New) The transgenic plant of claim 22, wherein the amino acid sequence shares at least 85% sequence identity to SEQ ID NO: 17, 18, 19, 23, or 26.

51. (New) The transgenic plant of claim 22, wherein the amino acid sequence shares at least 90% sequence identity to SEQ ID NO: 17, 18, 19, 23, or 26.

52. (New) The transgenic plant of claim 15, wherein the temporin peptide consists of SEQ ID NO: 17, 18, 19, 23, or 26.